

Serial No. 09/749,064

39. A core as defined in claim 22 wherein said rovings include a heat activated adhesive resin.

40. A core as defined in claim 22 wherein said strips comprise translucent foam material and including translucent skins overlying said core surfaces.

41. A fiber reinforced core panel adapted for use with a hardenable resin and having opposite core surfaces adapted to be attached to corresponding skins, said core panel comprising a plurality of elongated strips of low density cellular material, a first layer of fibrous rovings continuously and helically surrounding each of said strips along the length thereof, and said elongated strips and said helically surrounding rovings are connected together to form a unitized said core panel with said rovings extending over said core surfaces for receiving the skins and adapted to be moved as a preform unit to a molding process where the resin is hardened.

42. A core panel as defined in claim 41 and including a second layer of fibrous rovings continuously and helically surrounding said first layer on each said strip along the length thereof, and said rovings in said second layer extend helically in an opposite direction and cross said rovings in said first layer.

43. A core panel as defined in claim 41 wherein all of said rovings surrounding each said strip extend helically in the same angular direction and form only a single layer on each said strip.

44. A core panel as defined in claim 41 and including generally parallel continuous fibrous rovings extending longitudinally along each of said strips adjacent said first layer of helically extending rovings.

Serial No. 09/749,064

45. A core panel as defined in claim 41 wherein each of said strips of foam material has generally a triangular cross-sectional configuration.

46. A core panel as defined in claim 41 wherein the elongated strips and surrounding rovings are connected together prior to hardening the resin by skin members overlying said core surfaces.

47. A core panel as defined in claim 41 and including a plurality of rows of stitched rovings forming reinforcing struts extending between said opposite core surfaces, and said struts are enclosed by said strips.

48. A core panel as defined in claim 47 wherein said strips have parallel spaced grooves within said core surfaces, and said stitched rovings extend within said grooves.

49. A core panel as defined in claim 41 wherein said rovings include a heat activated resin.

50. A core panel as defined in claim 41 wherein said rovings are porous for receiving a hardenable adhesive resin.

51. A core panel as defined in claim 50 and including internal resin distribution grooves extending within said strips and spaced inwardly from said opposite surfaces of said core, and at least one resin feeder channel connecting said grooves.

Serial No. 09/749,064

52. A core panel as defined in claim 50 and including at least one skin having inner and outer layers of porous and fibrous material, and a resin barrier film of adhesive material between said layers.

53. A core panel as defined in claim 41 wherein said strips comprise translucent foam material and including translucent skins overlying said core surfaces.

54. A core panel as defined in claim 41 and including at least one internal sheet of fibrous material extending within each of said strips generally parallel to said opposite core surfaces.

55. A core panel as defined in claim 41 and including internal transverse reinforcing members extending within each of said strips between said core surfaces.

56. A core panel as defined in claim 41 wherein adjacent said rovings are spaced from each other.

57. A fiber reinforced core panel adapted for use with a hardenable resin and having opposite core surfaces adapted to be attached to corresponding skins, said core panel comprising a plurality of elongated strips of low density cellular material, adjacent said strips having opposing faces within an interior of said core panel between said opposite core surfaces, webs of fibrous material separating said opposing faces of said adjacent strips and extending between said opposite core surfaces, portions of said webs being exposed at said opposite core surfaces, a plurality of rows of reinforcing struts extending between said opposite core surfaces at an acute angle relative to said webs and extending through said webs, and said struts comprising fibrous rovings enclosed by said strips.

Serial No. 09/749,064

58. A core panel as defined in claim 57 and including skins of porous and fibrous material adjacent said opposite core surfaces, and said rovings also extend through said skins.

59. A core panel as defined in claim 57 wherein said webs and said rovings include a heat activated resin.

60. A core panel as defined in claim 57 wherein each of said webs is disposed at an acute angle relative to said core surfaces.

61. A core panel as defined in claim 57 wherein said webs are integrally connected and form a continuous corrugated pattern in cross-section through said strips.

62. A core panel as defined in claim 57 wherein said webs comprise portions of fibrous rovings helically surrounding each of said foam strips along the length thereof.

63. A core panel as defined in claim 62 and including generally parallel and continuous fibrous rovings extending longitudinally along said strips adjacent said helically surrounding rovings.

64. A core panel as defined in claim 57 wherein each of said strips has a generally triangular cross-sectional configuration.

65. A core panel as defined in claim 57 and including resin distribution grooves extending internally within said strips and spaced from said core surfaces adjacent said webs, and at least one resin feeder channel connecting said grooves.